

CLASSROOM MANAGEMENT SYSTEM VIA MOBILE DEVICES

A thesis submitted to the Graduate School in partial fulfillment of the requirements for the degree of Master of Science (Information Technology) in Universiti Utara Malaysia

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ABSTRACT

Mobile devices, applications and services become assimilated into people's daily activities. The full potential of mobile application is realized when people can access current information at anytime and at anywhere. Existing practice in allocating available classrooms and classrooms reservation are performed manually. In addition, to report any device failure located in classrooms is currently made by calling the helpdesk. Therefore, a Classroom Management System (CMS) via mobile devices is proposed to overcome such problems; allowing lecturers to identify the required classrooms, perform classroom reservation and find the person-in-charge while administration staffs can operate on managing the rooms. System Development Research Methodology (SDRM) has been used for the CMS development. Users acceptance towards CMS had been identified by performing a field study involving 15 respondents. Results showed that 75% of the respondents are satisfied with CMS and felt that it is an acceptable application. Hence, this indicates that CMS provides satisfaction to lecturers and administration staffs in facilitating the daily routine of their working environment

ABSTRAK

Peralatan mudah alih, aplikasi dan perkhidmatan telah menjadi keperluan dalam aktiviti harian. Potensi sepenuhnya bagi aplikasi mudah alih telah disedari apabila orang ramai boleh mendapat maklumat semasa pada bila-bila masa. Amalan yang ada untuk memperuntukkan bilik kuliah yang sedia ada dan tempahan bilik kuliah dilakukan secara manual. Oleh itu, untuk menjadikan urusan ini lebih berkesan, iaitu boleh mendapatkan maklumat pada bila-bila masa sahaja, CMS telah dicadangkan untuk menangani masalah ini; dengan membolehkan pensyarah untuk mengenalpasti bilik kuliah yang diperlukan, membuat tempahan bilik kuliah, dan menghubungi staf pentadbiran yang bertugas bagi melaksanakan operasi mentadbir bilik kuliah. Metodologi SDRM telah digunakan untuk pembangunan CMS. Penerimaan pengguna terhadap CMS telah dikenalpasti dengan membuat kajian yang melibatkan 15 responden. Keputusan menunjukkan bahawa 75% dari responden berpuas hati dengan CMS dan merasakan ia adalah aplikasi pengurusan bilik kuliah yang boleh diterima. Oleh yang demikian, ini telah menunjukkan bahawa CMS telah memberi kepuasan kepada pensyarah dan staf pentadbiran dalam memudahkan aktiviti harian terhadap persekitaran kerja mereka.

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LIST OF ABBREVIATIONS

CMS	Classroom Management System
UUM	Universiti Utara Malaysia
ASP	Active Server Page
LCD	Liquid Crystal Display
WAP	Wireless Application Protocol
WML	Wireless Markup Language

CHAPTER 1

INTRODUCTION

1.1 Introduction

The growing of technology makes human activities more easy and efficient. Now people can access information from any place and even on mobile. The internet is used as a medium to access information operate business and many more. According to Bubley (2007), out of 1.3 billion internet users, only 37% of the users access internet via personal desktop and laptops. Another 33% of the users access by both PC and mobile devices and 30% of them access internet from mobile phones. For that reason, mobile computing applications have been developed to facilitate users in accessing information. The technology offered by wireless devices like smart phone and PDAs have contributed to the improvement of existing systems.

Applications that run on mobile phones require WAP services as the fundamental platform. WAP has been defined as a global standard for bringing internet content and services to mobile phones and other wireless devices (Bennet, 2001). Information that is to be accessed via mobile phone requires WAP as the standard protocol. WAP enables the task of accessing internet through mobile devices while avoiding “world wide wait” (Jacobs *et al.*, 2008). The “world wide wait” which is defined as time taken to access information from the internet should be avoided when implementing WAP application. On the other hand, the WAP service browser can represent the interface in simpler and smaller display.

Resource management has been used for sharing different resources consists of what resources are available, where they located, what their properties and what their

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